

MIND&BODY



Ms Bridgit O'Donovan suffered from preeclampsia when she was expecting her son, Leo. Preeclampsia is a condition characterised by high blood pressure and a rise in protein in a woman's urine during pregnancy. ST PHOTO: DESMOND WEE

Hidden danger of pregnancy

Preeclampsia affects 4% to 5% of pregnancies here and can impair foetal growth and mum's organs

Felicia Choo

Public relations manager Bridgit O'Donovan's second pregnancy was beset with problems.

Her unborn son was growing slower than usual when, almost 30 weeks in, she experienced a seizure and loss of vision in May 2013.

What followed was an "out-of-body experience", recalled Ms O'Donovan, 42, who is Australian and a permanent resident here.

She was whisked to KK Women's and Children's Hospital (KKH) that same morning by her husband. Although able to walk, she was highly distressed. Later that same night, she gave birth to her son Leo.

Leo was born premature because of intrauterine growth restriction, a condition which causes a foetus to grow at a slower rate than usual. He had a hole in his heart and weighed less than 1kg.

Ms O'Donovan was struck with preeclampsia, a condition where a woman experiences high blood pressure and an increased amount of protein in her urine during pregnancy.

Preeclampsia involves reduced blood flow from the placenta and lack of oxygen and nutrients to the foetus, which can impair foetal growth.

It is one of the most common medical problems affecting pregnant women here. Over the last five years, about 4 to 5 per cent of them suffered from the condition, said Professor Tan Kok Hian, who heads KKH's Perinatal Audit and Epidemiology Unit.

Worldwide, preeclampsia occurs in 3 to 8 per cent of pregnancies.

"Usually, pregnant women with this severe condition will have symptoms such as severe headaches, nausea and vomiting, right-sided upper abdominal pain or visual disturbances," said Prof Tan. He added that preeclampsia can also cause

damage to the mother's organs.

Ms O'Donovan's diagnosis was unexpected because regular check-ups with the gynaecologist had shown that her blood pressure was within the normal range and she did not have protein in her urine.

Her first pregnancy three years earlier had also been uneventful. "I hadn't been feeling well and I stopped work about a week before... (but) the doctor said, 'You're OK, the baby's fine,'" she said.

Preeclampsia is the result of a malfunction in the placenta, said Dr Chang Tou Choong, a consultant obstetrician and gynaecologist at Thomson Medical Centre.

An early and correct diagnosis is the most important factor in treating it. "The problem we have is that sometimes conditions go unnoticed, and we miss diagnosing preeclampsia. This is also because it is not part of the routine test yet," he added.

For example, high blood pressure may be the only symptom, and doctors may not find any protein in the urine, but that does not mean the woman does not have preeclampsia. Doctors may detect the condition if they run a blood test, which can identify hard-to-detect cases and predict how the disease will progress.

After giving birth, Ms O'Donovan developed eclampsia, in which a woman can experience convulsions or seizures.

SYMPTOMS

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PROFESSOR TAN KOK HIAN, who heads KKH's Perinatal Audit and Epidemiology Unit, on preeclampsia.

She did not have any more seizures after the one she experienced before giving birth, but was warded in the intensive care unit (ICU) and had to remain in hospital for a week.

She was also prescribed medication that lasted a few months to help her lower her blood pressure.

Prof Tan said the number of cases where complications develop as a result of preeclampsia, including eclampsia, have dropped significantly from 77 cases in 1955 to about six cases in 2014.

Leo, who is now five years old, is doing considerably better, although he is still underweight. The hole in his heart closed naturally.

His first few years were spent in and out of the hospital due to check-ups, as well as occupational therapy and physiotherapy.

"I hope that no one else has to have it (preeclampsia)," said Ms O'Donovan, who also has an eight-year-old daughter with her entrepreneur husband, Mr Alan Soon, 44. "I think women are really good at taking care of everyone, but when you're pregnant, you're really got to take care of yourself."

Like Ms O'Donovan, Ms Kang Zhi Ni, 29, also had preeclampsia during her first pregnancy and her unborn child suffered from intrauterine growth restriction as well.

It was only two days before she gave birth to her daughter, Faith, that her preeclampsia was diagnosed. Her daughter, who is now nearly four months old, weighed only 1.7kg when she was born prematurely at 35 weeks.

"I had headaches in my second and third trimesters but I thought this was because of work or stress," said Ms Kang, who has since recovered.

The good news is that preeclampsia is completely reversible, said Dr Chang. "After giving birth, even if a patient had been severely ill, suffered from seizure and ended up in ICU, she can potentially regain all normal bodily functions. It is reversible after the delivery of the baby and the placenta."

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Preeclampsia: Risks, effects and treatment

All pregnant women are at risk of preeclampsia, and they should be routinely screened for the disorder by undergoing blood pressure and urine protein tests, said Dr Anita Kale, a senior consultant at the National University Hospital's Women's Centre.

Here are some other facts about the condition:

Q Which women are more at risk of developing preeclampsia?

A Preeclampsia is more common during a woman's first pregnancy. Developing it then puts her at a higher risk of getting it again in her next pregnancy.

The condition is also more common for women at the extremes of reproductive age groups, such as teenagers and those older than 40.

Women carrying twins or triplets are at increased risk and the same is true for those who are obese, or have kidney disease, diabetes, hypertension, or autoimmune disorders such as systemic lupus erythematosus.

Q How does it affect the mother and her unborn baby?

A Preeclampsia can affect various organs and systems in a woman's body. Uncontrolled high blood pressure may result in bleeding in the brain, causing a stroke. Preeclampsia can develop into eclampsia, where the woman has convulsions or seizures.

Liver and kidney functions may also become impaired, occasionally resulting in acute kidney failure. Blood clotting may get af-

ected, resulting in uncontrolled bleeding.

Preeclampsia affects the development of the placenta, which may restrict the growth of the foetus. As a result, the foetus tends to be small.

When the placenta function worsens, the foetus may start to show signs of hypoxia, which is a deficiency in the amount of oxygen reaching the tissues, prompting an early delivery.

Q How is preeclampsia treated?

A Managing preeclampsia involves controlling the high blood pressure with medications, monitoring for any complications arising from preeclampsia and ensuring foetal well-being while waiting for the foetus to become mature enough to allow delivery.

The pregnancy may need to be ended prematurely if the condition worsens.

While mild cases can be managed on an outpatient basis, severe cases require hospitalisation for close monitoring up until delivery.

There is ongoing research for predictors of preeclampsia in early pregnancy.

Ultrasound assessment of blood flow to the uterus is one such test and is more accurate when performed in the first trimester than in the second trimester. Some biochemical markers in the blood are also being studied for prediction of preeclampsia.

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